

XP 000189097

6001 Chemical Abstracts  
84(1976)19 April, No.16, Columbus, OH, US

P. 333

Con B28/18

84: 110612t High-strength, extrusion-molded, lightweight calcium silicate product. Otoma, Takashi; Kubota, Kazuo; Yamada, Toshio (Nippon Asbestos Co., Ltd.) Japan. Kokai 75 95,319 (Cl. B28B), 29 Jul 1975, Appl. 73 143,931, 26 Dec 1973; 3 pp. A mixt. of calcareous and siliceous materials is mixed with a slurry of a hydrothermally synthesized Ca silicate [23296-15-3]. The resulting slurry is dewatered to adjust its water content to 50-120%, based on the total solids content, extruded, autoclaved, and dried to obtain high-strength Ca silicate products useful as building materials. Thus, Ca silicate hydrothermally synthesized from powd. siliceous stone 52 and milk of lime 1100 parts was dispersed in 15-fold water, and the slurry 30 parts (as solids content) was mixed with a mixt. of powd. siliceous stone 15, portland cement 35, bentonite 10, amosite asbestos 5, and methylcellulose 0.2 part. The mixt. was dewatered to water content 80-90% (based on the solids content), extruded, autoclaved at steam pressure 9 kg/cm<sup>2</sup> for 7 hr, and dried to obtain a lightwt. silicate product having d. 0.75 g/cm<sup>3</sup> and bending strength 80 kg/cm<sup>2</sup>. Its shrinkage was 1.12% when heated at 1000°.



XP 000188580

P. 299

C04B28/22B

103:182776h Mixture for autoclaved lime-silica concrete. Vrbecký, Jan; Rihánek, Stanislav Czech. CS 222,361 (Cl. C04B15/06), 15 Aug 1985, Appl. 80/4,174, 13 Jun 1980; 2 pp. Products with physicomech. properties comparable to cement-bonded concretes were prepd. from hydrothermally processed artificial aggregates (AA) and a flue dust-lime binder. Thus, a mixt. of 8 kg flue dust, 1.64 kg powd. lime, and 3.5 L water was pelletized, the pellets were heated 10 h at 1 MPa in a moist atm., and dried at 105° to give AA with bulk d. 880 kg/m<sup>3</sup>, vol. d. 1580 kg/m<sup>3</sup>, water sorption 47%, grain size 10-25 mm, and crushing strength 2.25 MPa (dry) and 1.69 MPa (moist). Mixing 1100 kg AA with 450 kg binder (prepd. from a 10:4.3 flue dust-lime mixt.) and 300 L water and heating 10 h at 1 MPa as above gave test bodies which had crushing strength in conformity with the no. 170 concrete std. L. J. Urhanek



XP 000187478

6001 Chemical Abstracts  
95(1981)13 July, No.2, Columbus, OH, US

C04B28/20

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95:11663f High-strength calcium silicate products. Nippon Asbestos Co., Ltd. Jpn. Kokai Tokkyo Koho 81 14,466 (Cl. C04B15/06), 12 Feb 1981, Appl. 79/86,894, 11 Jul 1979; 6 pp. Hydrothermally synthesized Ca silicate is mixed with calcareous material, siliceous material, reinforcing fibers other than asbestos, and water, molded, and steam-cured. Thus, a slurry contg. Ca silicate 20, alkali-resistant glass fibers 4, siliceous stone 38, and  $\text{Ca}(\text{OH})_2$  38 parts was molded, autoclaved, and dried to obtain molded products having d. 0.61-0.63 g/cm<sup>3</sup> and bending strength 85-90 kg/cm<sup>2</sup>.